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10/621,369	07/18/2003	Jang Geun Oh	HI-0159	4055

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EXAMINER	
SHERMAN, STEPHEN G	

ART UNIT	PAPER NUMBER
2629	

DATE MAILED: 09/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/621,369	OH, JANG GEUN	
	Examiner	Art Unit	
	Stephen G. Sherman	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 July 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,4-8,10-22 and 28-49* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4-8,10-22 and 28-49* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 July 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on the 31 July 2006 has been entered. Claims 1, 4-8, 10-22 and 28-49 are pending. Claims 2-3, 9 and 23-27 are cancelled.

Response to Arguments

2. Applicant's arguments filed 24 April 2006 with respect to claims 1, 4-8, 10-22 and 28-43 have been fully considered but they are not persuasive.

On page 13, last paragraph the applicant argues that Mendelson does not teach or suggest comparing the received brightness signals with a plurality of brightness signals and to output new brightness control codes based on the comparison, wherein the new brightness control codes selectively adjust a brightness of the display screen, the new brightness control codes structured in an EDID format. The applicant argues that the sections cited do not suggest the claimed brightness control codes and/or the

claimed brightness control codes structured in an EDID format, and that Mendelson only discusses updating a colorimetric reference profile, not outputting new brightness control codes structured in EDID, and that the reference profile is not structured in EDID. The examiner respectfully disagrees.

First, Mendelson was not used to teach of comparing the received brightness with a plurality of brightness signals, the secondary reference Evanicky was used to teach this feature. As for the argument that the reference profile is not structured in EDID, the examiner would like to point the applicant to column 16, lines 7-10 which explain that the updated reference profile for the LCD monitor including a table of the values is stored in EDID memory, meaning that the values are stored in EDID format. Therefore the reference profile is in EDID format, and being that the profile is used to control the brightness that the screen is set to, the reference profile would contain brightness control codes.

As for the argument on page 14, lines 9-12 that Evanicky does not teach or suggest the claimed brightness control codes or the claimed comparison and output of new brightness control codes, the examine respectfully disagrees. As recited in the current and previous office actions Evanicky does disclose the comparison of brightness codes in order to output new codes.

On page 14, line 18 the applicant begins the argument that Mendelson does not relate to a plurality of brightness levels. The applicant states that Mendelson displays an image at various intensity settings, measures chromacity values and calculates luminous ratios at various lamp settings, and that this does not teach to se the display

screen to a corresponding plurality of predetermined brightness levels as recited in independent claim 12. The applicant also states that the comment on page 3 of the Office action do not relate to a plurality of predetermined brightness levels but rather the comments appear to relate to merely adjusting a luminous ratio to various settings. The examiner respectfully disagrees.

The examiner would like to point attention to Table 1 shown in column 11 of Mendelson. This table is what is used as an example in Mendelson at the levels he measures the intensity at. At setting 1, both of the lamps are at a maximum setting. At settings 2 and 3, one lamp is maximum and the other is minimum, and at setting 4 both lamps are at minimum. Even assuming both lamps might have the same characteristics, when both are at maximum level, this will create the maximum brightness on the display, when both are lamps are at minimum this will create the minimum brightness on the display and when one or the other is at max/min this will be in between the max and min. This will create at least 3 different brightness levels (remember that the lamp setting determines the brightness of the display). This is explained in column 12, lines 37-58, then in column 13, lines 9-14 and column 15, lines 53-67. The ratios calculated at manufacture for the different brightness levels are compared with the ratios calculated during the current measurement for the different brightness levels, meaning that the ratios are the settings for the lamps at various brightness levels and these new values differ from those determined at the factory.

Claim Objections

3. Claims 44, 45 and 49 are objected to because of the following informalities:

Claim 44 recites: "...wherein the controller to output the brightness control codes by increasing or decreasing...". The examiner suggest changing this to "...wherein the controller outputs the brightness control codes by increasing or decreasing..."

Claim 45 recites: "...wherein the controller to output new brightness control codes by increasing or decreasing...". The examiner suggest changing this to "...wherein the controller outputs new brightness control codes by increasing or decreasing..."

Claim 49 recites: "...wherein setting the brightness control code includes by increasing or decreasing...". The examiner suggest changing this to "...wherein setting the brightness control code includes increasing or decreasing..."

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 12-22 and 28-41 are rejected under 35 U.S.C. 102(e) as being anticipated by Mendelson et al. (US 6,559,826).

Regarding claim 12, Mendelson et al. disclose a display screen for a computer system (Figure 2), comprising:

a display portion of the computer system for displaying an image (Figure 2, item 210); and

a memory of the computer system configured to store a plurality of updated brightness control codes set based on outputs of the display portion that can be used by the controller of a computer system to set the display screen to a corresponding plurality of predetermined brightness levels (Figure 6, item 595 and column 9, line 66 to column 10, line 13. The examiner interprets that the display is part of the computer system, therefore the memory 595 is a memory of the computer system. The examiner also interprets that the sensor 610 is a product which sets the control codes based on the output of the display, i.e. brightness. These control codes then can be used by the controller to drive the display to a particular brightness. This is explained in Figure 11. Also column 16, lines 7-10 explain that the updated reference profile for the LCD monitor including a table of the values is stored in EDID memory, meaning that the values are stored in EDID format.).

Regarding claim 13, Mendelson et al. disclose the display screen according to claim 12, wherein the memory is configured to store the brightness control codes in an EDID format (Column 9, line 66 to column 10, line 13).

Regarding claim 14, Mendelson et al. disclose the display screen according to claim 12, wherein the memory is configured to store inverter control codes that can be used to control an inverter that supplies power to the display screen (Column 9, lines 28-42 and column 10, lines 56-67).

Regarding claim 15, Mendelson et al. disclose a computer system, comprising:

a display screen of the computer system (Figure 2, item 210);

a sensor of the computer system configured to sense a brightness of the display screen at a plurality of brightness levels and to output brightness signals (Figure 6, item 610. Figure 11 shows in steps 1115-1130 that the sensor measures the brightness at a plurality of brightness levels such that the values can be output to the controller.); and

a controller of the computer system coupled to the display screen and the sensor and configured to reset a plurality of brightness control codes corresponding to the plurality of brightness levels based on the brightness output by the sensor (Figure 6, item 590 is coupled to the display screen and the sensor 610. Column 9, lines 28-48 and column 11, lines 1-17. The examiner interprets that since the sensor 610 sends the data to the monitor 216 and that MCU 593 contained within controller 590 communicates the measurement data, that the controller receives the brightness signal

from the sensor and outputs brightness control codes based on this data from the sensor 610. Column 16, lines 7-16 explain that the updated reference profile replaces the previously stored reference profile, meaning that the brightness codes would be reset to the new values.).

Regarding claim 16, this claim is rejected under the same rationale as claim 7.

Regarding claim 17, Mendelson et al. discloses the computer system according to claim 15, further comprising an inverter(Figure 6, item 570), coupled to the display screen and the controller and configured to provide power to the display screen, wherein the controller controls the inverter to adjust the brightness of the display screen (Column 9, lines 28-42).

Regarding claim 18, Mendelson et al. disclose the computer system of claim 15, wherein the controller is configured to generate brightness control codes based on the brightness signal of the sensor, and wherein the brightness control codes can be used to selectively adjust a brightness of the display screen (Column 9, lines 28-48and column 11, lines 1-17. The examiner interprets that since the sensor 610 sends the data to the monitor 216 and that MCU 593 contained within controller 590 communicates the measurement data, that the controller generates brightness control codes based on this data from the sensor 610 and that since the appropriate control

signals are sent based on the measurement data from the sensor that the control codes adjust the brightness of the display screen.).

Regarding claim 19, this claim is rejected under the same rationale as claim 6.

Regarding claim 20, this claim is rejected under the same rationale as claim 13.

Regarding claim 21, this claim is rejected under the same rationale as claim 11.

Regarding claim 22, Mendelson et al. disclose the computer system according to claim 15,

wherein the sensor is installed at a center or one side of the display screen (Figures 10A and 10B).

Regarding claim 28, Mendelson et al. disclose a method of setting brightness control codes for a display (Figure 9), comprising:

driving the display (Figure 9, step 910. The examiner interprets that to arm up the display it must be driven.);

sensing a brightness of the display (Figure 9, steps 920 and 930 and column 12, line 37 to column 13, line 8);

adjusting the driving of the display until the display is driven at a predetermined brightness level (Figure 9, steps 920 and 930 and column 12, line 37 to column 13, line

8. The examiner interprets that since the intensity levels are changed and that the measurements are taken as the intensities are displayed on the screen, that the driving is adjusted to display the intensity at a predetermined level.); and

setting a brightness control code corresponding to the predetermined brightness level (Figure 9, steps 940, 950 and 960. The examiner interprets that converting and storing the measurements would be setting a brightness control code.), wherein the driving includes initially driving the display using a brightness control code provided by a display manufacturer, and wherein setting the brightness control cod includes setting a new brightness control code that replaces the brightness control code provided by the display manufacturer (Column 10, lines 56-67 explains that initial brightness codes are set when the display is manufactured. The brightness codes can then be reprogrammed to update brightness codes in reference profiles to account for degradation of the display. When the new reference profile is used to provide the brightness control codes to the display, it is replacing the brightness control codes provided by the manufacturer, i.e. since the reference profile codes are used instead of the manufacturer's codes, they have replaced the previously used codes.).

Regarding claim 29, Mendelson et al. disclose the method according to claim 28,

wherein the driving comprises initially driving the display screen using a brightness control code provided by the display manufacturer, and wherein the setting

step comprises setting a new brightness control code that replaces the brightness control code provided by the display manufacturer (Column 10, lines 56-67).

Regarding claim 30, Mendelson et al. disclose the method according to claim 28,

wherein the driving, sensing adjusting and setting are preformed a plurality of times to set a plurality of different brightness control codes corresponding to a plurality of different predetermined brightness levels (Figure 9, step 935 states levels which refers to a plurality.).

Regarding claim 31, Mendelson et al. disclose the method according to claim 30,

further comprising storing the plurality of brightness control codes in a memory of the display (Figure 9, step 960).

Regarding claim 32, this claim is rejected under the same rationale as claim 6.

Regarding claim 33, this claim is rejected under the same rationale as claim 14.

Regarding claim 34, this claim is rejected under the same rationale as claim 11.

Regarding claim 35, this claim is rejected under the same rationale as claim 14.

Regarding claim 36, please refer to the rejections of claim 28 and 30.

Mendelson et al. also disclose

using one of the brightness control codes corresponding to a desired brightness level to drive the display at the desired brightness level (Column 10, lines 56-67. The examiner interprets that after the codes are set that the display would be driven using one of the brightness control codes stored.).

Regarding claim 37, this claim is rejected under the same rationale as claim 14.

Regarding claim 38, Mendelson et al. disclose the method according to claim 36,

wherein the bright control codes are set after the display is driven at the predetermined brightness level (Figure 9. The examiner interprets that the codes are set in steps 940-960 after the display is driven in steps 910 and 920.).

Regarding claim 39, this claim is rejected under the same rationale as claim 13.

Regarding claim 40, this claim is rejected under the same rationale as claim 13.

Regarding claim 41, this claim is rejected under the same rationale as claim 38.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 1, 4-8, 10-11 and 42-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mendelson et al. (US 6,559,826) in view of Evanicky et al. (US 2003/0058202).

Regarding claim 1, Mendelson et al. disclose an apparatus for setting brightness control codes used to control a brightness of a display screen (Figure 6), comprising:

a sensor (Figure 6, item 610) configured to measure a brightness of a display screen at each of a plurality of brightness levels and to output brightness signals

corresponding to each of the plurality of brightness levels (Column 9, lines 28-42. The examiner interprets that the sensor 610 transmitting data directly to the LCD monitor 216 would be outputting a brightness signal. Figure 11 in steps 1115-1130 displays images at various brightness levels and measures these values with the gamma sensor. The gamma sensor would have to output these values to the system in order for them to be analyzed in the next steps.);

a controller (Figure 6, item 590) configured to receive the brightness signals and to output new brightness control codes (Column 9, lines 28-48and column 11, lines 1-17. The examiner interprets that since the sensor 610 sends the data to the monitor 216 and that MCU 593 contained within controller 590 communicates the measurement data, that the controller receives the brightness signal from the sensor and outputs brightness control codes based on this data from the sensor 610, i.e. this means that based on the brightness sensed, new values are derived and used to control the brightness of the display.),

wherein the new brightness control codes selectively adjust a brightness of the display screen (Column 9, lines 43-48. The examiner interprets that since the appropriate control signals are sent based on the measurement data from the sensor that the control codes adjust the brightness of the display screen, i.e. this means that after the brightness is sensed by the sensor, the reference profile is updated and the new reference profile is used to control the brightness of the display.),

the new brightness control codes structured in an EDID format (Column 9, line 66 to column 10, line 13 and column 16, lines 7-10 explain that the updated reference

profile for the LCD monitor including a table of the values is stored in EDID memory, meaning that the values are stored in EDID format.).

Mendelson et al. fail to teach that the controller is configured to receive the brightness signals and to compare the received brightness signals with a plurality of brightness signals and to output new brightness control codes based on the comparison.

Evanicky et al. disclose of an apparatus for setting brightness control codes comprising a controller that is configured to receive brightness signals and to compare the received brightness signals with a plurality of brightness signals and to output new brightness control codes based on the comparison (Paragraph [0031] and Appendix A explain that the software module 172 and microcontroller 140 determine brightness levels to calibrate a display, where the brightness of display between different sources can be determined at a plurality of different levels, such as minimum and maximum intensity levels, the microcontroller then can output the brightness signals to the display. The examiner interprets that the sensor used to measure the brightness, Figure 1 item 102, is a product which sets the control codes based on the output of the display, i.e. brightness. These control codes then can be used by the controller to drive the display to a particular brightness.).

Therefore it would have been obvious to "one of ordinary skill" in the art at the time the invention was made to use the brightness level measuring scheme taught by Evanicky et al. to replace the measuring scheme taught by Mendelson et al. in order to create a calibration method of an LCD that does not alter the cell gap spacing and

collects luminance information orthogonal to the surface of the glass with a narrow acceptance angle.

Regarding claim 4, Mendelson et al. and Evanicky et al. disclose the apparatus of claim 1.

Mendelson et al. also disclose wherein the controller is configured to record the new brightness control codes in a memory of a computer system (Column 9, lines 43-47 and column 4, lines 59-67 and Figure 1, items 13,14 and 15. The examiner interprets that since the codes are sent to the computer system and that the computer system has memory that the codes would be stored there, and column 16, lines 7-10 explain that the updated reference profile for the LCD monitor including a table of the values is stored in EDID memory.).

Regarding claim 5, Mendelson et al. and Evanicky et al. disclose the apparatus according to claim 1.

Mendelson et al. also disclose wherein the controller is configured to record the new brightness control codes in a memory of the display screen (Figure 6, item 595 and column 16, lines 7-10 explain that the updated reference profile for the LCD monitor including a table of the values is stored in EDID memory, meaning that the values are stored in EDID format.).

Regarding claim 6, Mendelson et al. and Evanicky et al. disclose the apparatus according to claim 1.

Mendelson et al. also disclose wherein the controller is configured to output the new brightness control codes to at least one of a system BIOS of a computer, an operating system of a computer, and a microcontroller of a computer system (Column 9, lines 43-47 and column 4, lines 59-67 and Figure 1, items 12 and 19. The examiner interprets that since the codes are sent to the computer system and that the computer system has an operating system and processors 12 and 19 that the codes are output to at least one of these items in the computer system.)

Regarding claim 7, Mendelson et al. and Evanicky et al. disclose the apparatus according to claim 1.

Mendelson et al. also disclose wherein the sensor comprises at least on photodiode (Figure 6, item 610 shows a light sensor. It would be inherent that the light sensor would be a photodiode since a photodiode is commonly used to sense light.).

Regarding claim 8, Mendelson et al. and Evanicky et al. disclose the apparatus according to claim 1.

Mendelson et al. also disclose wherein the senor comprises a jig configured to be temporarily attached to the display screen (Figure 10A and 10B, item 1048 holds the sensor so that it is able to be temporarily attached to the display screen.).

Regarding claim 10, Mendelson et al. and Evanicky et al. disclose the apparatus according to claim 1.

Mendelson et al. also disclose wherein the new brightness control codes comprise information used to control a power inverter of a liquid crystal display (Figure 6, item 570 and column 9, lines 28-42).

Regarding claim 11, Mendelson et al. and Evanicky et al. disclose the apparatus of claim 1.

Mendelson et al. also disclose wherein the brightness control codes includes high temperature brightness control codes that indicate how to control the brightness of the display screen when the display screen is operated at high temperatures (Column 10, lines 56-67).

Regarding claim 42, this claim is rejected under the same rationale as claim 38.

Regarding claim 43, Mendelson et al. disclose an apparatus for setting brightness control codes used to control a brightness of a display screen (Figure 6), comprising:

a sensor (Figure 6, item 610) configured to measure a brightness of a display screen and to output a brightness signal (Column 9, lines 28-42. The examiner interprets that the sensor 610 transmitting data directly to the LCD monitor 216 would be outputting a brightness signal. Figure11 in steps 1115-1130 displays images at

various brightness levels and measures these values with the gamma sensor. The gamma sensor would have to output these values to the system in order for them to be analyzed in the next steps.);

a controller (Figure 6, item 590) configured to receive the brightness signals and to output brightness control codes (Column 9, lines 28-48and column 11, lines 1-17. The examiner interprets that since the sensor 610 sends the data to the monitor 216 and that MCU 593 contained within controller 590 communicates the measurement data, that the controller receives the brightness signal from the sensor and outputs brightness control codes based on this data from the sensor 610, i.e. this means that based on the brightness sensed, new values are derived and used to control the brightness of the display. The examiner interprets that since the new values determine, i.e. control, the brightness of the display that these are brightness control codes.),

wherein the brightness control codes selectively adjust a brightness of the display screen (Column 9, lines 43-48. The examiner interprets that since the appropriate control signals are sent based on the measurement data from the sensor that the control codes adjust the brightness of the display screen.),

Mendelson et al. fail to teach that the controller is configured to receive the brightness signal and to compare the received brightness signals with a plurality of brightness signals set according to an output of the display screen and to output brightness control codes based on the comparison.

Evanicky et al. disclose of an apparatus for setting brightness control codes comprising a controller that is configured to receive brightness signals and to compare

the received brightness signals with a plurality of brightness signals set according to an output feature of display by products and to output brightness control codes based on the comparison (Paragraph [0031] and Appendix A explain that the software module 172 and microcontroller 140 determine brightness levels to calibrate a display, where the brightness of display between different sources can be determined at a plurality of different levels, such as minimum and maximum intensity levels, the microcontroller then can output the brightness signals to the display. The examiner interprets that the sensor used to measure the brightness, Figure 1 item 102, is a product which sets the control codes based on the output of the display, i.e. brightness. These control codes then can be used by the controller to drive the display to a particular brightness.).

Therefore it would have been obvious to "one of ordinary skill" in the art at the time the invention was made to use the brightness level measuring scheme taught by Evanicky et al. to replace the measuring scheme taught by Mendelson et al. in order to create a calibration method of an LCD that does not alter the cell gap spacing and collects luminance information orthogonal to the surface of the glass with a narrow acceptance angle.

9. Claims 44-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mendelson et al. (US 6,559,826) in view of Evanicky et al. (US 2003/0058202) and further in view of Ichise (US 5,786,801).

Regarding claims 44 and 45, Mendelson et al. and Evanicky et al. disclose apparatus according to claims 1 and 43.

Mendelson et al. and Evanicky et al. fail to explicitly teach wherein the controller outputs the new brightness control codes by increasing or decreasing at least one previous brightness control code by 1.

Ichise discloses of a controller which outputs brightness control codes by increasing or decreasing at least one previous control code by 1 (Figure 3 and column 5, lines 17 to column 6, line 6 explain that the controller changes the brightness of the display by attenuating the brightness based on the measurement data. An example is given in column 5, lines 53-56 that if the difference value obtained is 30, the brightness is attenuated by 30%. Then in column 5, line 64 to column 6, line 1 it explains that the values are changed when the difference value is between 0 and 30. This means that if the difference value is 1, then the brightness will be attenuated by 1%, i.e. if the detected brightness is 79 and the reference value is 78, then the brightness will be decrease by 1 so that the brightness matches 78.).

Therefore it would have been obvious to "one of ordinary skill" in the art at the time the invention was made to increase or decrease brightness control codes as taught by Ichise with the apparatus taught by the combination of Mendelson et al. and Evanicky et al. in order to limit said brightness to a predetermined brightness level when the current brightness is higher than the predetermined value and to increase brightness when the current brightness is lower then a predetermined value.

10. Claims 46-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mendelson et al. (US 6,559,826) in view of Ichise (US 5,786,801).

Regarding claims 46-49, these claims are rejected under the same rationale as claims 44 and 45.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen G. Sherman whose telephone number is (571) 272-2941. The examiner can normally be reached on M-F, 8:00 a.m. - 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SS

29 August 2006

AMR A. AWAD
PRIMARY EXAMINER